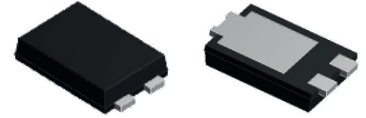


Features

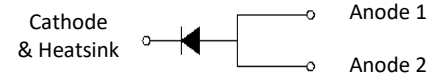
- Low leakage current
- Schottky barrier diode
- Low forward voltage drop
- Very low profile-typical height of 1.1 mm
- Moisture sensitivity: level 1, per J-STD-020
- Halogen-free according to IEC 61249-2-21 definition
- High temperature soldering guaranteed: 260°C/10 seconds



RoHS
COMPLIANT



TO-277



Schematic Diagram

Applications

For use of fast switching in RF module, lighting, cellular phone, portable device, power supplies and other consumer applications.

Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	45	V
Maximum RMS Voltage	V _{RMS}	31.5	V
Maximum DC Blocking Voltage	V _{DC}	45	V
Maximum Average Forward Rectified Current	I _{F(AV)}	15	A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	300	A
Thermal Resistance, Junction to Ambient ¹	R _{θJA}	40	°C/W
Thermal Resistance, Junction to Case ¹	R _{θJC}	15	°C/W
Thermal Resistance, Junction to Lead ¹	R _{θJL}	7	°C/W
Operating Junction Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	Test Conditions	Typ	Max	Unit	
Forward Drop Voltage	V _F	I _F =1A	T _A =25°C	0.28	V	
		I _F =15A		0.43		
		I _F =1A	T _A =85°C	0.22		0.25
		I _F =15A		0.40		
		I _F =1A	T _A =125°C	0.17		0.20
		I _F =15A		0.39		
Reverse Leakage Current @ V _R	I _R	T _J =25°C	0.1	0.125	mA	
		T _J =85°C	2.9	5		
		T _J =125°C	22	30		
Junction Capacitance	C _J	4.0V, 1MHz	950	-	pF	

Note:

1. Mounted on copper pad area of 30 x 30mm to each terminal.

Ratings and Characteristics Curves ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

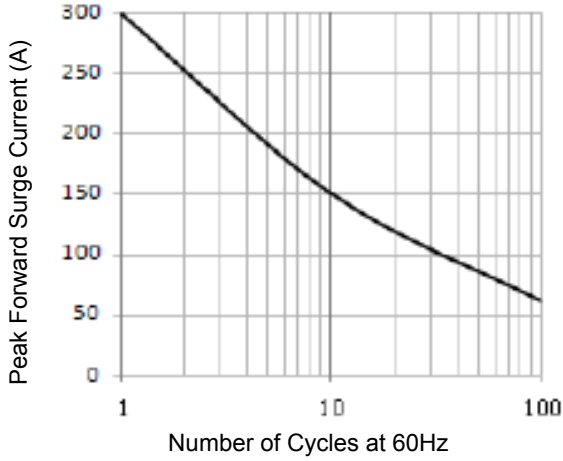


Figure 1. Maximum Non-Repetitive Peak Forward Surge Current

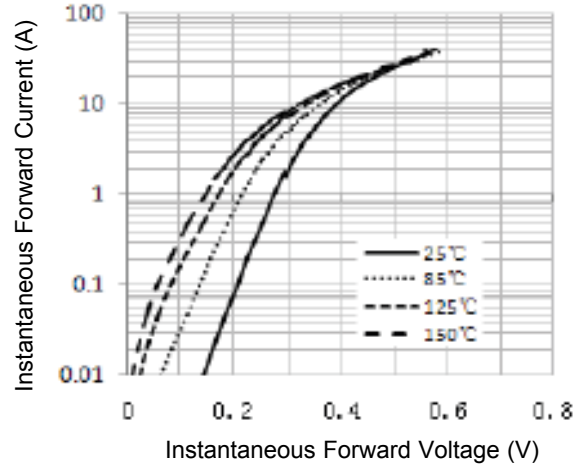


Figure 2. Typical Instantaneous Forward Characteristics

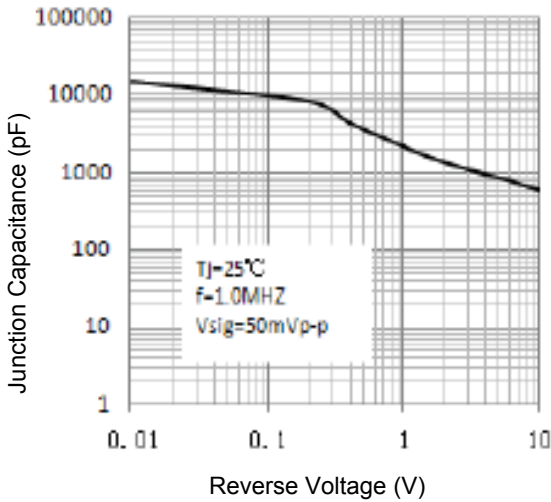


Figure 3. Typical Junction Capacitance

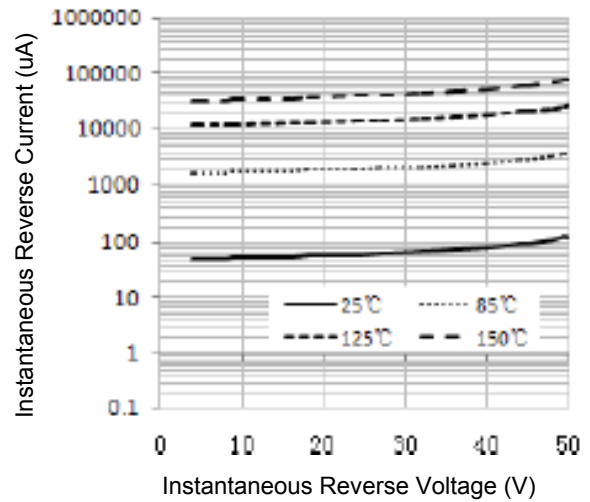


Figure 4. Typical Reverse Characteristics

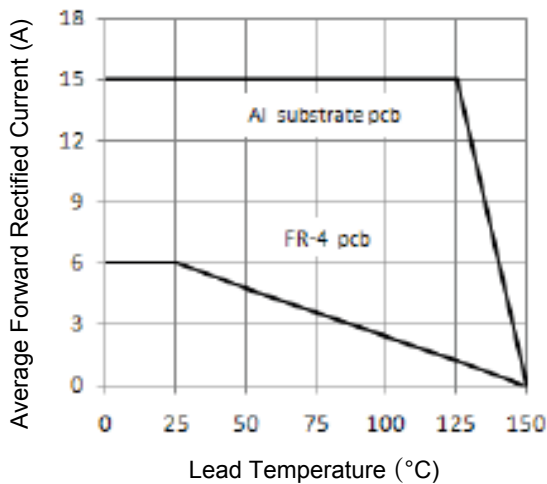
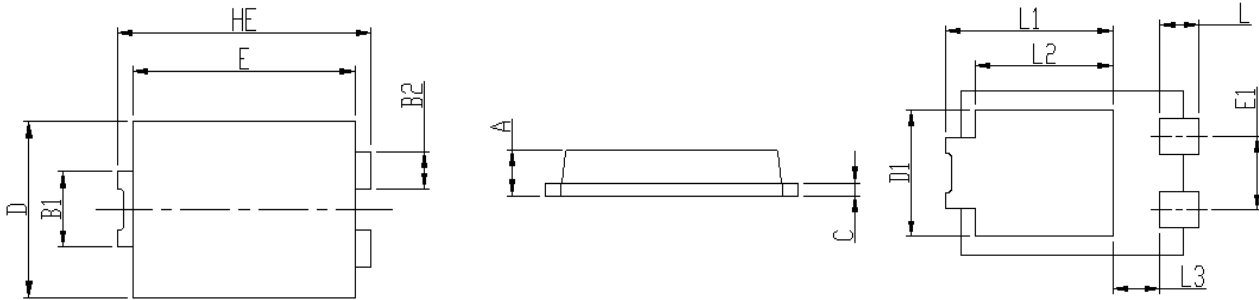


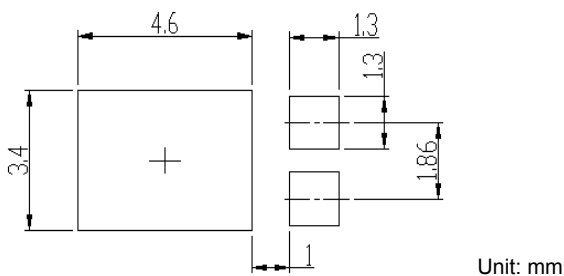
Figure 5. Forward Current Derating Curve

Package Outline Dimensions TO-277



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
HE	6.400	6.600	0.252	0.260
E	5.600	5.800	0.220	0.228
D	4.100	4.300	0.161	0.169
B1	1.700	1.900	0.067	0.075
B2	0.800	1.000	0.031	0.039
A	1.050	1.200	0.041	0.047
C	0.300	0.400	0.012	0.016
L	0.850	1.100	0.033	0.043
L1	4.200	4.400	0.165	0.173
L2	3.520 TYP		0.139 TYP	
L3	1.100	1.400	0.043	0.055
D1	3.000	3.300	0.118	0.130
E1	1.860 TYP		0.073 TYP	

Recommended Pad Layout



Order Information

Device	Package	Marking	Carrier	Quantity
GSGC1545S	TO-277	C1545S	Tape & Reel	5,000pcs / Reel